

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

1. – 7. (CANCELLED)

8. (CURRENTLY AMENDED) A method of operating an imaging apparatus, the apparatus including a plurality of groups of photosensors, wherein a first subset of groups of photosensors is substantially evenly distributed along a linear array and is substantially interleaved with the second subset of groups of photosensors along the linear array, a first output line, and a second output line, comprising the steps of:

in a first mode, transferring signals from a first subset of groups of photosensors to the first output line, and transferring signals from a second subset of groups of photosensors to the second output line; and

in a second mode, for each of a plurality of groups of photosensors, transferring signals from a first photosensor in the group to the first output line, and transferring signals from a second photosensor in the group to the second output line;

wherein, in the first mode or the second mode, signals from adjacent photosensors or groups of photosensors on the first and second output lines overlap over time.

9. (ORIGINAL) The method of claim 8, wherein the first mode corresponds to a low-resolution operation and the second mode corresponds to a high-resolution operation.

10. (ORIGINAL) The method of claim 8, further comprising
in the first mode, effectively connecting at least two photosensors in the group to form a single photosensor.

11. (CANCELLED)

12. (CANCELLED)

13. (ORIGINAL) The method of claim 8, wherein the apparatus includes a shift register having a plurality of stages, and each of at least two photosensors within a group is associated with a shift register stage.

14. (ORIGINAL) The method of claim 13, further comprising
in the first mode, operating the shift register so that, for a plurality of groups of photosensors, only one shift register stage effectively operates the group.

15. (NEW) An imaging apparatus, comprising:
an odd output line for conveying odd video signals;
an even output line for conveying even video signals; and
a plurality of groups of photosensors, the groups being arranged in odd and even positions along a linear array;
the photosensors in each group being connectable in a first mode to output a single video signal for the group, with the groups in odd positions outputting to the odd video line and the groups in even positions outputting to the even video line;
the photosensors in each group being connectable in a second mode whereby a first photosensor in the group outputs to the odd video line and a second photosensor in the group outputs to the even video line; and
means for reading out signals in the first mode or the second mode, wherein signals from adjacent photosensors or groups of photosensors on the first and second output lines overlap over time.

16. (NEW) The apparatus of claim 15, the first photosensor in each group and the second photosensor in each group being arranged along the linear array.

17. **(NEW)** The apparatus of claim 15, each group of photosensors further including a third photosensor and a fourth photosensor.

18. **(NEW)** The apparatus of claim 15, the photosensors in each group forming a two-dimensional array.